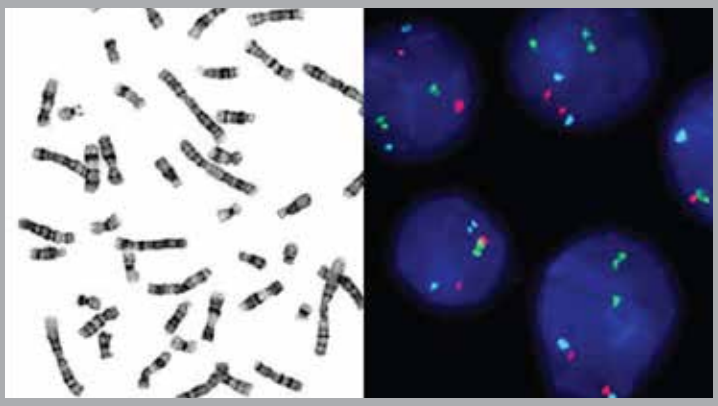
CytoPower

Imaging and Analysis for Cytogenetic Samples



POWERED BY GENASIS

APPLIED SPECTRAL IMAGING

A Complete Cytogenetics Workflow

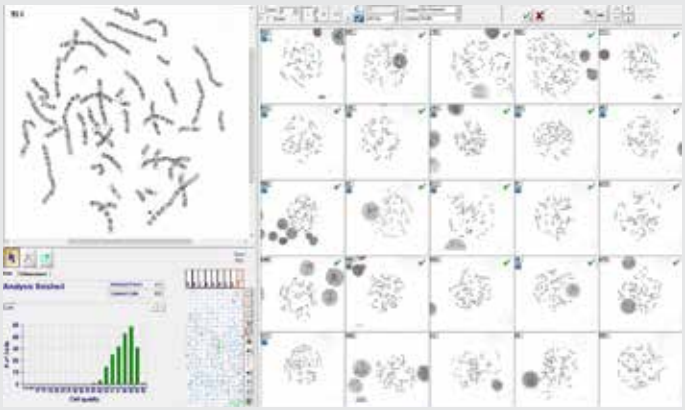
Digitize slides, analyze chromosomes and score probes all-in-one

Welcome to your comprehensive Cytogenetics testing solution:

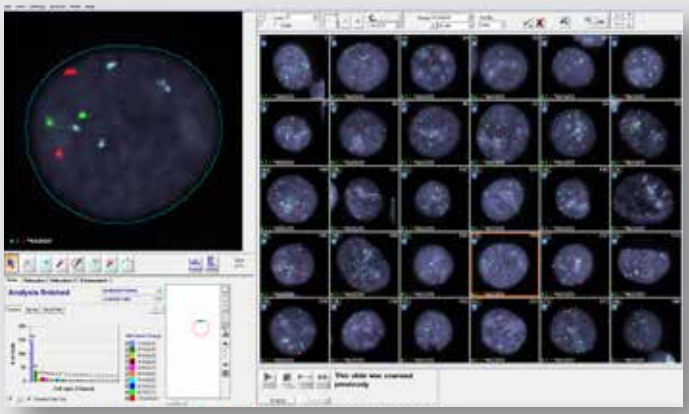
1 Scan & Capture

Digitize your slides for onscreen analysis and case management. Capture both metaphase and interphase cells for analysis

2 View & Analyze

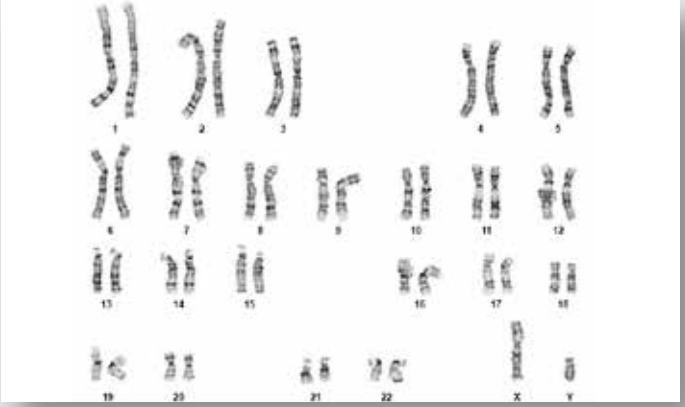


All in one platform to analyze chromosomes and classify cells

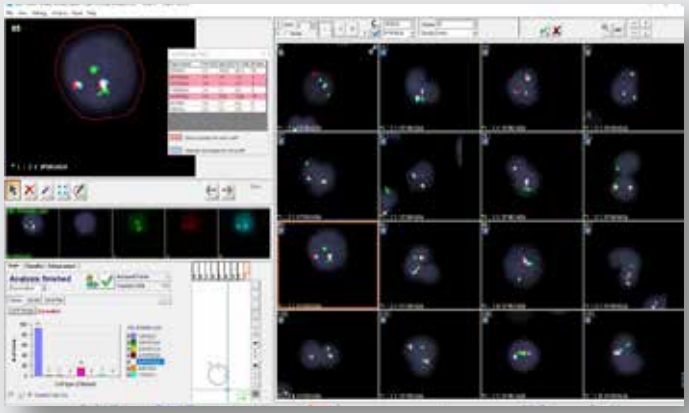


Scan ›››› Analyze ›››› Review ›››› Report ›››› Complete!

3 Review Results



Click of a button karyotype and real-time statistical results on signals

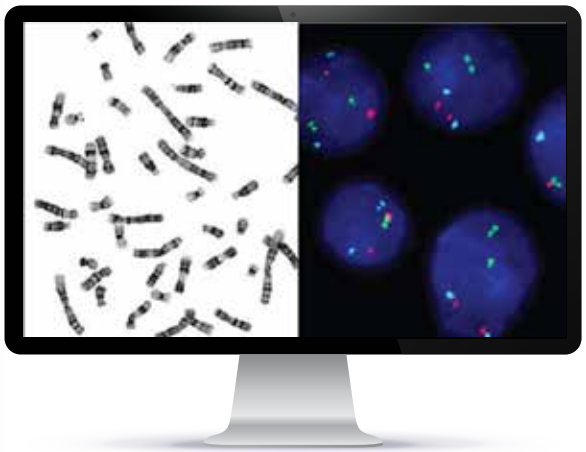


4 Report

Submit comprehensive case details

Cutting edge scanning, imaging and analysis instrumentation for karyotyping and FISH

All in one system



"CytoPower doubled our lab productivity in bone marrow karyotyping and tripled our productivity in blood sample karyotyping."

Nettie Rietema, University Medical Center Groningen, NL

Benefits to your lab:

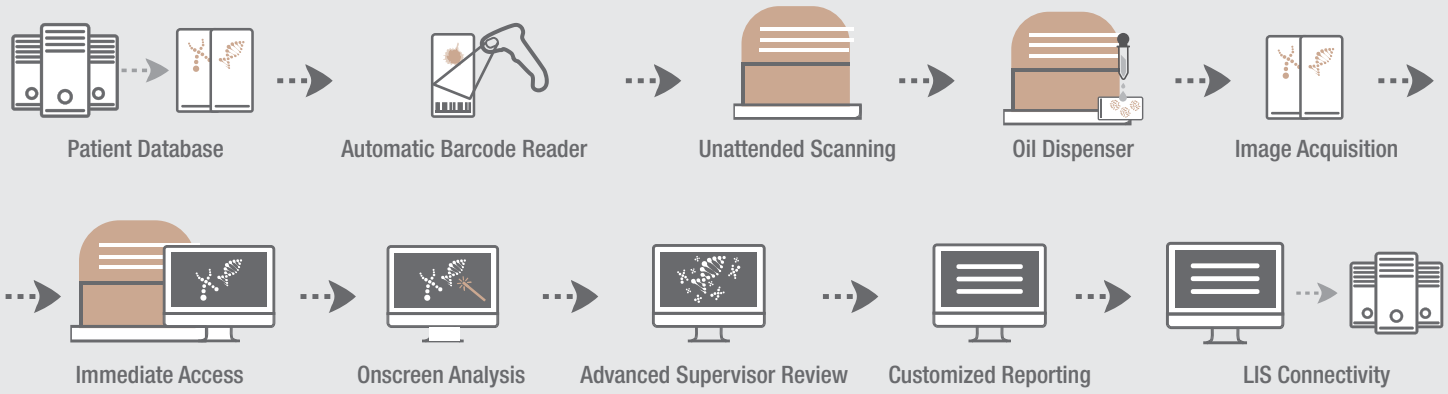
- **Higher diagnostic confidence** with more cell analysis
- Automatic metaphase and interphase finder for **better results**
- **Validated analysis tools** for standardization across users
- **Data management** for performance metrics
- And so much **more**

Digital Karyotyping & FISH Analysis

Manual and Automated Scanning

An all-in-one imaging & analysis solution for digital karyotyping and FISH diagnostics. Automated workflows, powerful algorithms and feature-rich software provide optimized lab productivity and greater confidence in patient assessment for cytogenetic labs.

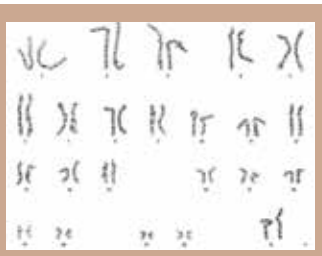
Fully Automated



Cytogenetic Clinical Applications to visualize, assess and identify:

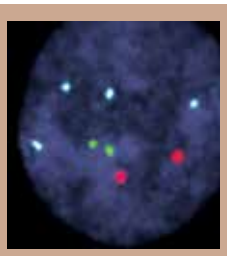
- ✓ Chromosomal Abnormalities
- ✓ Structural and Numerical Changes
- ✓ Prenatal Amniotic Fluid
- ✓ Postnatal Blood
- ✓ Bone Marrow Cancer Genetics
- ✓ And much more…

Hematology Fish Flow:



Karyotyping
Bright-Field Microscopy

+



FISH
Fluorescence Microscopy

=

Diagnostics & Treatment

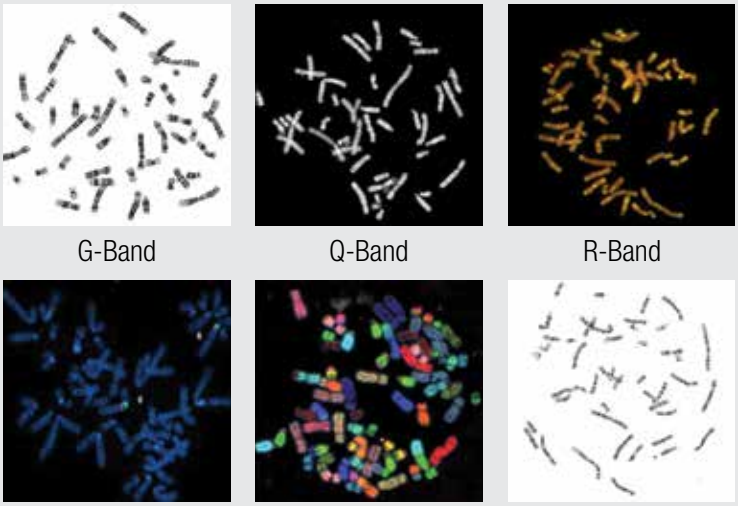
Digital Chromosome Analysis You Can Rely On

Efficiency, Precision, Versatility

State of the Art Image Quality
Start & Walkaway Scanning

High resolution 5MP camera sensor combined with a high quality 100x immersion oil objective

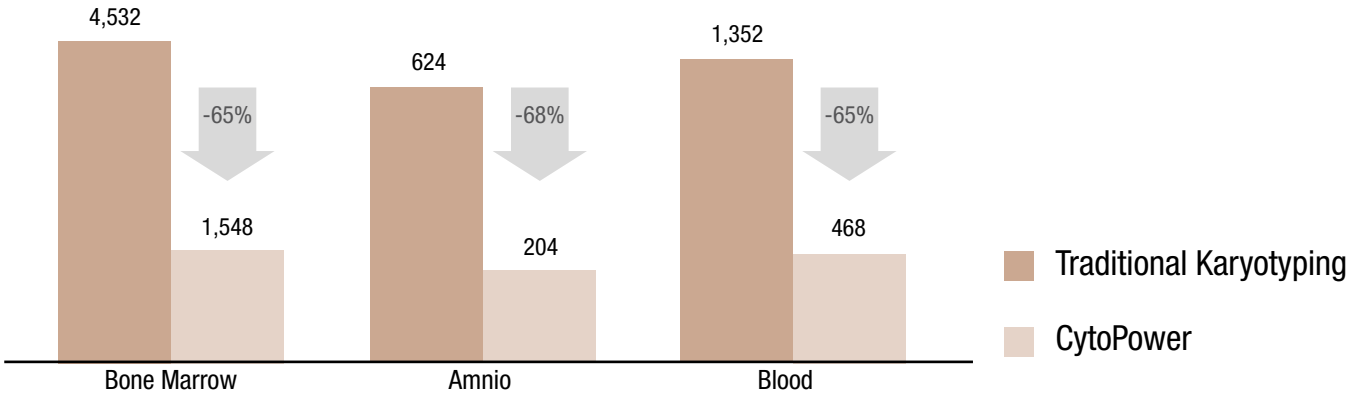
Broad Staining and Sample Menu



- Blood
- Bone Marrow
- Amniotic Fluid
- CVS

Increased Lab Productivity

66% Technologist Time Savings (Hours / Month)



Free technologist time to where their expertise is needed most

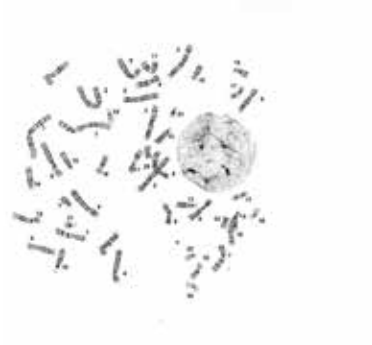
Comprehensive Working Platform

FDA CLEARED

Feature Rich Review & Analysis

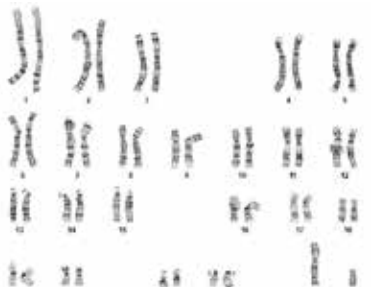
Count

Accurate automatic chormosome counting



Analyze

Fast and easy chromosome indexing and classification



Karyotype

High accuracy of automated karyotyping, with auto ISCN, auto bands estimation and auto overlap score

Easy Separation and Boundary Editing

"Magic Tool" combining 12 operations in a simple mouse click

Overlap

Split

Extend

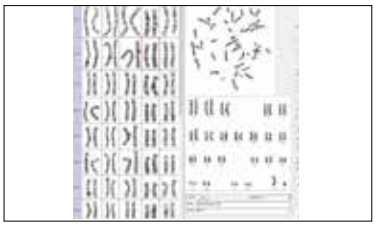
Combine

Saves hundreds of mouse-clicks per karyotype!

Advanced Onscreen Supervisor or Director Review

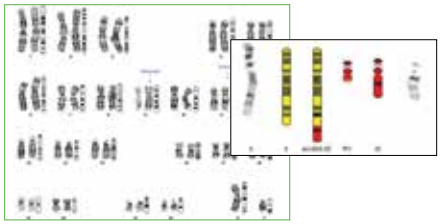
Image Gallery

Display of all case metaphases and karyotypes



Chromosome Compare

All captured cells and chromosomes side by side



Aberrant Ideogram

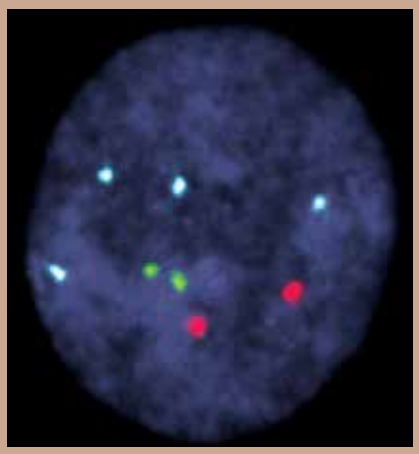
Chromosomes, cells, ideograms and annotations in an image generator

* FDA cleared for BandView, FISHView, SpotScan for CEP XY, UroVysion, ALK and HER2/neu FISH

Digital FISH Analysis

Accuracy, Consistency, Ease-of-Use

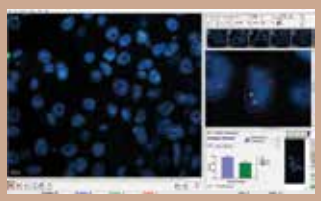
Image Quality Driven to the Max!



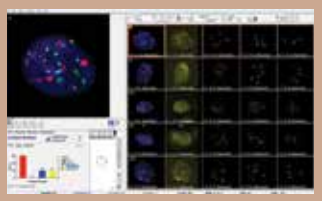
Wide Application Coverage

HER2/neu (Breast)

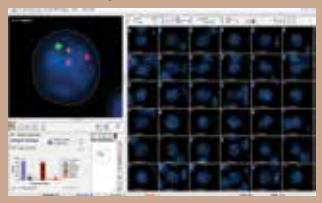
ALK (Lung)



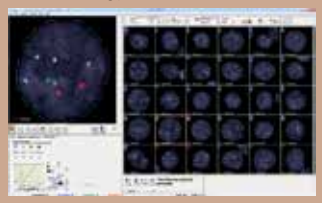
UroVysion (Bladder)



Hematology Fusion



Hematology Enumeration



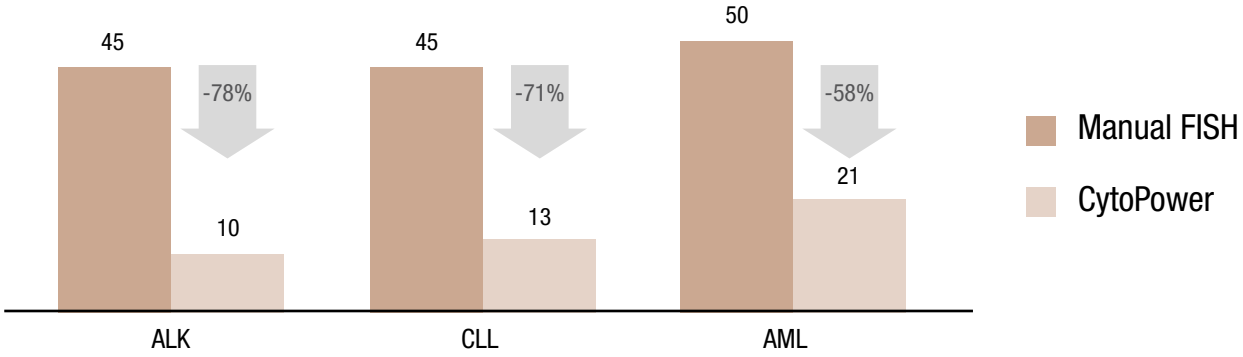
- ✓ Any Sample
- ✓ Any Probe

"Digital FISH analysis provides more efficient and accurate results and better patient care in comparison to traditional FISH methods."

Liew M, Rowe L, Clement PW, Miles RR, Salama ME., J Pathol Inform.

Workflow Efficiencies for Increasing Test Volumes

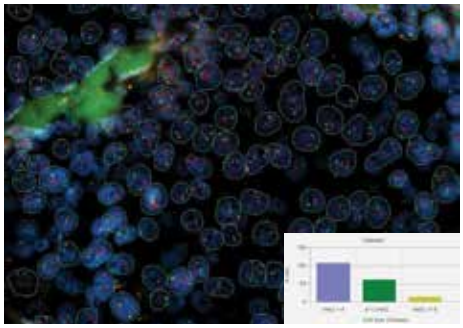
Over 55% Time Savings (Minutes / Case)



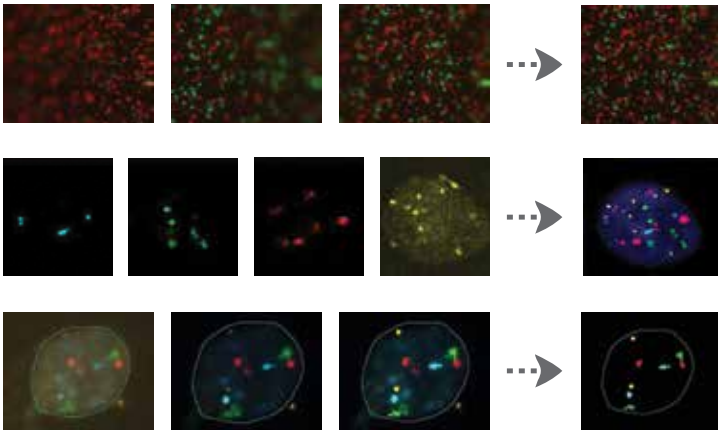
In-depth Cell Analysis

FDA CLEARED

Increased Diagnostic Confidence



Accuracy
Automated cell/ signal detection and classification for consistent reliable results



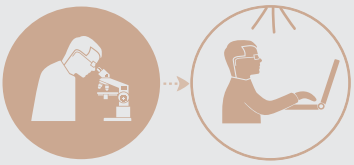
Digital Z-Stacking

Multi Layer Display

Signal Detection

Easy Classification & Review

No More Dark Room!

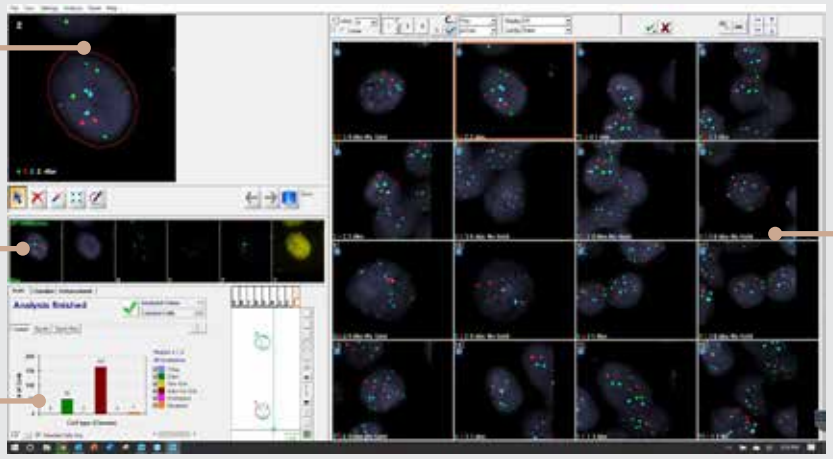


Double Blinded Analysis

High image quality with digital Z-stack of each cell

Multi-layer view for each signal

Real time statistics

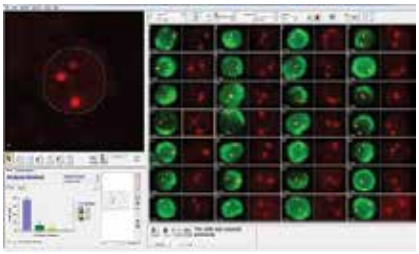


Cell gallery for fast and easy classification review

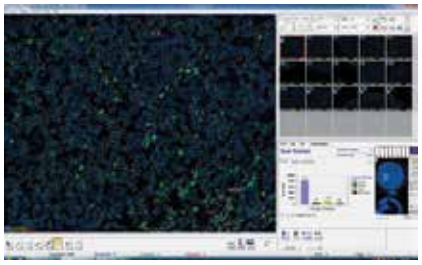
* FDA cleared for BandView, FISHView, SpotScan for CEP XY, UroVysion, ALK and HER2/neu FISH

CytoPower for Research Applications

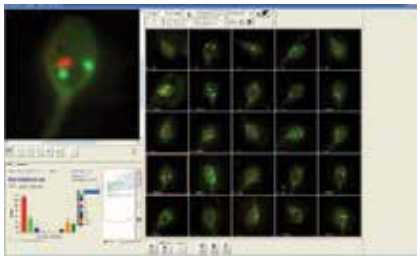
FISH Research



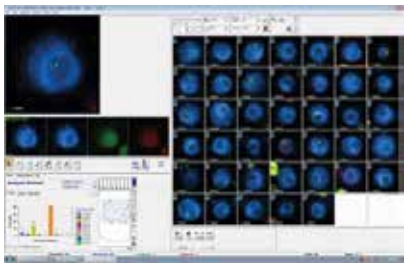
Circulating Tumor Cells



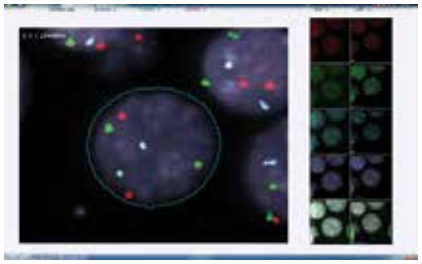
Immuno Fluorescence



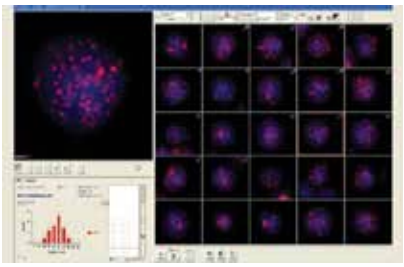
Sperm Cells



clgFISH

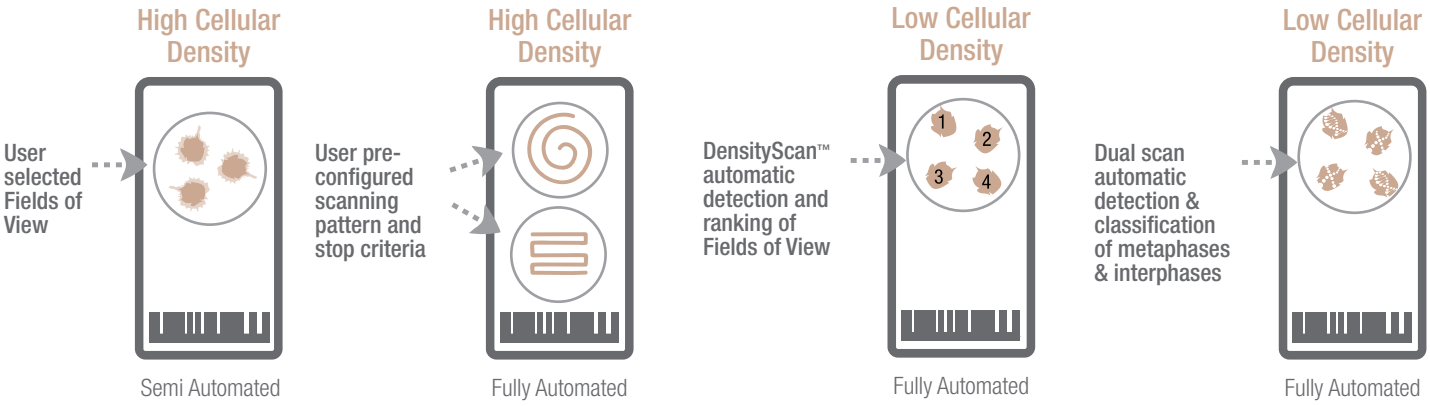


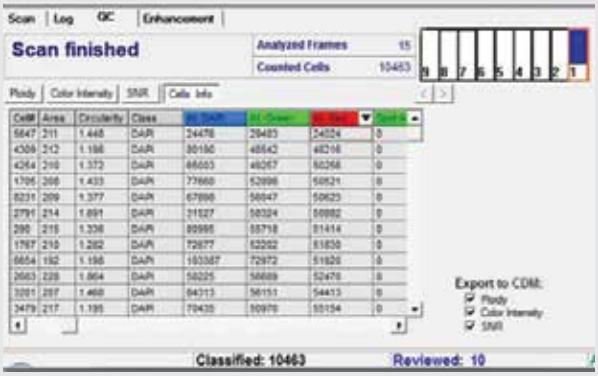
Successive Staining



Telomeres

Scanning Protocols for All Probes, Samples and Preparation Techniques





Quality Control of Probe Assays

Cell phenotyping and signal classification
Measurment and display of multiple cellular and signal properties

*HiSKY for Test Assurance

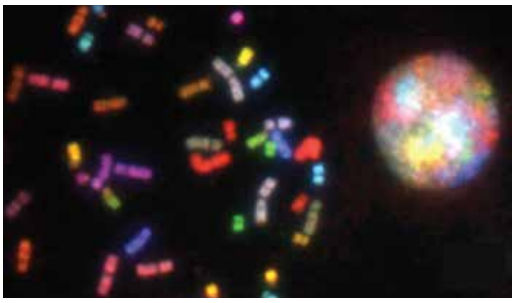
*HiSKY

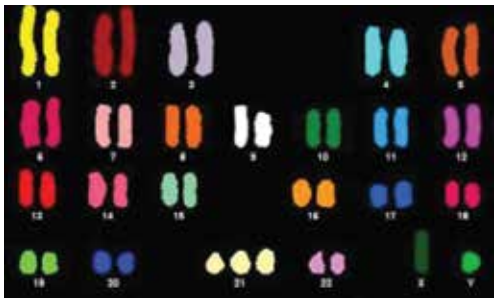
Gold Standard Spectral Karyotyping

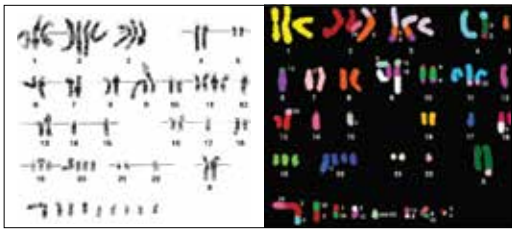
Multi-Color FISH Analysis for Result Verification

- ✓ Automatic identification of translocations and chromosomal origins
- ✓ Simultaneous detection of chromosomal aberrations in one hybridization
- ✓ Measurement of entire spectrum at each point

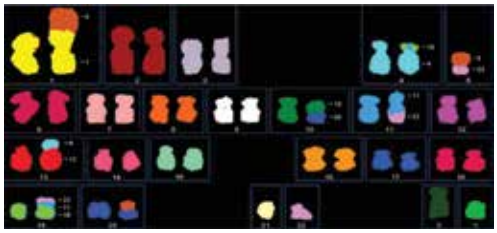
HiSKY Probe Kit
Chromosome paints for human, mouse and rat





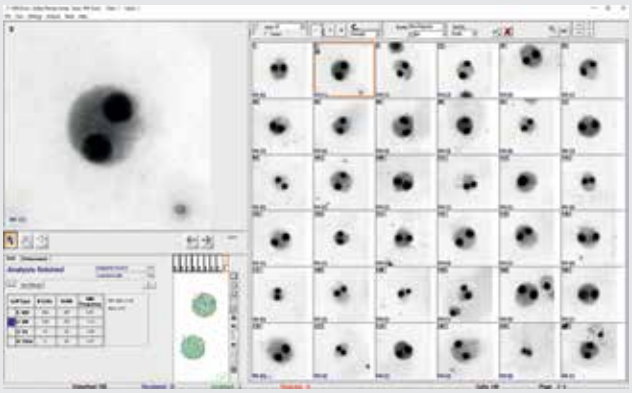


Brain Tumor



Ewing Sarcoma

*HiSKY is an add on application for research purposes



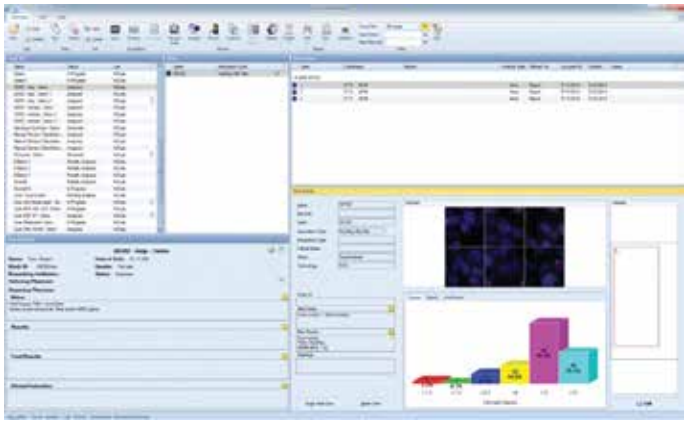
MN Score

Micronuclei imaging, scoring and analysis for measurement of DNA damage, cytostasis and cytotoxicity

Data Management and Connectivity

Modern Paperless Workflow

Central Portal and Database Easily Integrates with Lab LIS



Case Data Management (CDM)

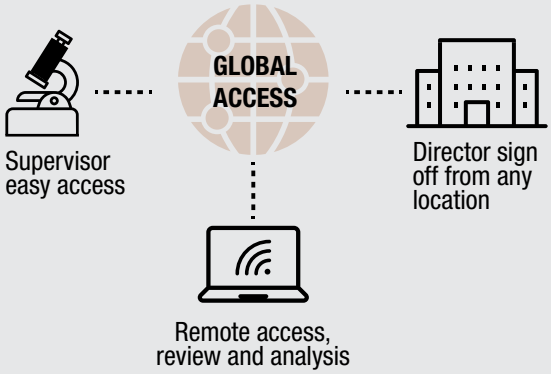
- Efficient
- Comprehensive
- Eliminates human error

Work from Home!

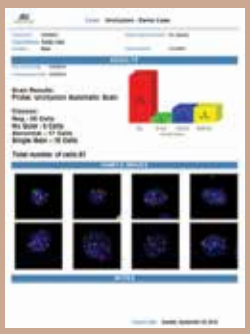
GenASIs AnyWhere™ for Remote Access

Lab Connectivity Anytime, Anywhere

Review, analyze and sign off case information from any location via a secured network



Advanced Reporting



1D/2D Barcode Reader

LIS Connectivity

- ✓ Performance
- ✓ Security
- ✓ Data Integrity

HIPAA Compliant

Become a Data-Driven Lab with LabLife

NEW

Generate lab performance statistics

LabLife™ for Lab Management

Benchmarks

Calculate performance benchmarks and track your KPIs. Meet certification and regulatory requirements

Optimization

Identify best practices to increase ROI per case and focus improvement efforts

Growth

Justify investment in additional capital equipment for the lab

Annual analysis and review

Compare performance year on year and make data driven decisions

Click for Atlas

NEW

Reference Atlas for higher assurance

Atlas provides the expert support you need to investigate, research, and confirm challenging abnormalities.

This new feature is located in BandView's toolbar for easy access during the analysis process.

http://atlasgeneticsoncology.org/

About Applied Spectral Imaging

Applied Spectral Imaging (ASI) is a global leader in biomedical imaging with a comprehensive product portfolio and a global distribution footprint.

Founded in 1993, ASI markets, services and supports its products in nearly 50 countries. With a wide FDA clearance portfolio, you can rest assured that ASI applications have been rigorously tested for compliance and clinical use.

The Company's technology, powered by GenASIs, enables pathology, cytogenetics and research laboratories to provide advanced diagnostics to patients through superior digital diagnostic tools.
ASI has a wide portfolio of dedicated solutions for brightfield, fluorescence and spectral imaging and analysis, including HiPath Pro, PathFusion, HiBand, HiFISH, CytoPower and Rainbow.

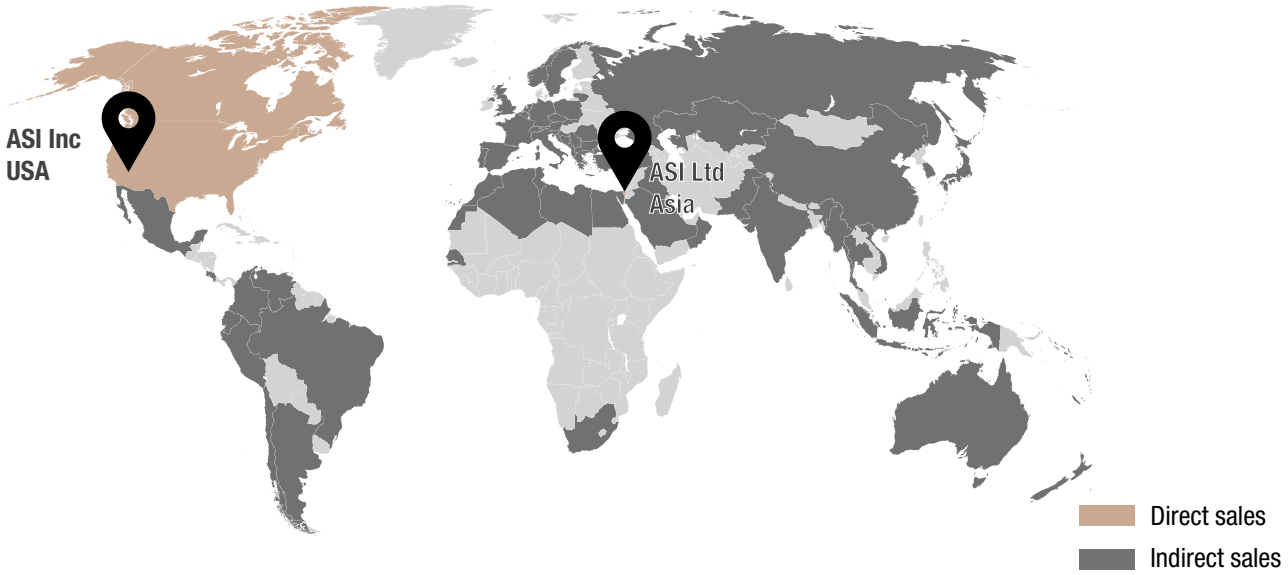
The Company has offices in the US and Asia and a global network of distribution partners.

Global Presence

3,500
Systems installed worldwide

54
Countries through direct & indirect sales forces

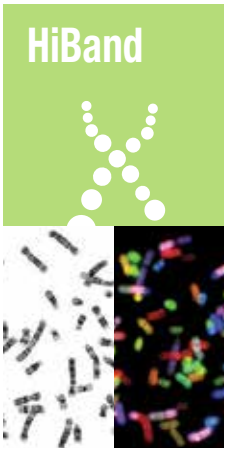
63
Third party distribution partners

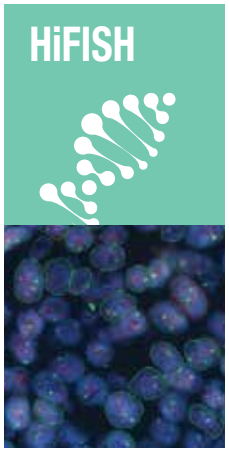


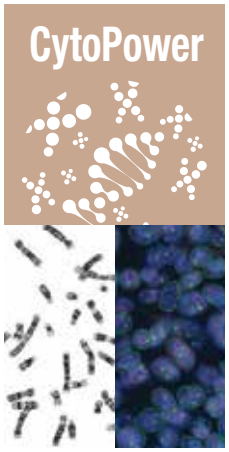
The Company's Product Portfolio

Exceptional Imaging & Analysis Solutions for Laboratories

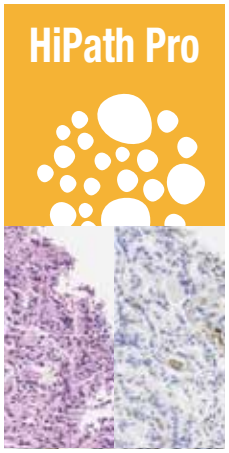
Cytogenetics

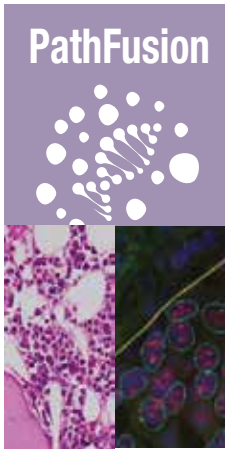




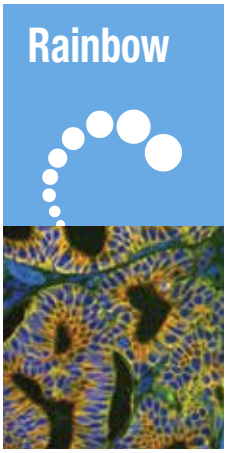


Pathology





Research

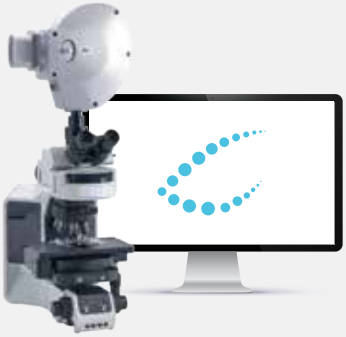


Diverse platforms to accommodate all laboratory needs

99-Slide Tray Loader

9-Slide Scanning System

1-Slide Capture System



HyperSpectral System

Review & Analysis Station

AnyWhere Remote Connectivity

System Specifications

	Manual 1 Slide		9 Slide Motorized Stage		99 Slide Tray Loader		HyperSpectral 1 Slide
Microscope Support	BF and FL upright microscopes		OLYMPUS BX61 BF + FL OLYMPUS BX63 BF+ FL ZEISS AxioImager Z2 BF+ FL		OLYMPUS BX61 BF + FL OLYMPUS BX63 BF+ FL ZEISS AxioImager Z2 BF+ FL		BF and FL upright microscopes
Objectives	Olympus 10x/0.3NA 60x/1.25NA 100x/1.3NA	ZEISS 10x/0.3NA 63x/1.25NA 100x/1.3NA	Olympus 1.25x/0.04NA 4x/0.16NA 10x/0.3NA 40x/1.4NA 60x/1.25NA 100x/1.3NA	ZEISS 1.25x/0.03NA 5x/0.16NA 10x/0.3NA 40x/1.3NA 63x/1.25NA 100x/1.3NA	Olympus 1.25x/0.04NA 4x/0.16NA 10x/0.3NA 40x/1.4NA 60x/1.25NA 100x/1.3NA	ZEISS 1.25x/0.03NA 5x/0.16NA 10x/0.3NA 40x/1.3NA 63x/1.25NA 100x/1.3NA	10x/0.3 60x/1.42 or 63x/1.25 100x/1.3
Camera	5MP CMOS Monochrome		5MP CMOS Monochrome		5MP CMOS Monochrome		Spectral 1.3MP Monochrome
Slide Capacity	1 slide (Manual or Motorized)		9 slides		99+ slides		1 slide (Manual or Motorized)
Barcode Reader	Handheld 1D/2D		Handheld 1D/2D		Integrated 1D/2D		Handheld 1D/2D
Automated Oil Dispenser	N/A		Optional		Integrated		N/A
Dimensions [WxDxH]	According to clients microscope		61cm x 69cm x 85cm (24” x 27.2” x 33.5”)		100cm x 90cm x 90cm (39.4” x 35.5” x 35.5”)		According to clients microscope
Weight	According to clients microscope		45kg 99.2lb		80kg 176.4lb		According to clients microscope

SCAN ME

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